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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,655	10/12/2001	John E. Liron	11867/53	3482

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EXAMINER

DANG, KHANH

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/977,655

Applicant(s)

LIRON, JOHN E.

Examiner

Khanh Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

In claim 1, line 7, after "wires", the word – each – should be inserted.

### ***Claim Rejections - 35 USC § 112***

Claims 6 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, the language "the circuit has two connectors connected to each input pin in a loop-through configuration" cannot be ascertained in view of at least Figs. 1 and 2.

In claim 12, the language "circuit has two connectors connected to each input pin in a loop-through configuration" cannot be ascertained in view of at least Figs. 1 and 2.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngo et al. in view of Bauer.

With regard to claims 1, 14, and 15, Ngo et al. discloses a circuit to route signals (shown generally at Figs. 1 and 4), comprising: a plurality of input pins (provided by interfaces 106/306) to receive input signals; a plurality of output pins (provided by interfaces 108/308) to transmit output signals; a plurality of connectors (of devices 1-N /links 112) each wired to exactly one of the plurality of input pins (provided by interfaces 106/306) and the plurality of output pins (provided by interfaces 108/308); and a switch matrix (102/202) for transmitting signals from at least one of said input pins to at least one of said output pin. It is noted here that this crosspoint switching circuit having fixed architecture is also disclosed as prior art, under background of invention, in the originally filed specification). With regard to claim 2, it is clear from at least the drawings in Ngo et al. that the circuit is to be housed in a single frame. With regard to claim 3, it is clear that the circuit of Ngo et al. is capable of receiving and transmitting video signals (see column 1, lines 38-45). With regard to claim 4, it is clear that the circuit of Ngo et al. is capable of receiving and transmitting audio signals (see column 1, lines 38-45). With regard to claim 5, it is clear that the circuit of Ngo et al. is capable of receiving and transmitting data signals (see column 1, lines 38-45). With regard to claim 6, as best the Examiner can ascertain from the language of the claim, it is clear that the combination of the switching circuit of Ngo et al. and the input/output switches taught by Bauer (see below) define the so-called "two connectors connected to each input pin in a loop-through configuration." Note also that it is clear that in at least Fig. 2 of Ngo et al., the connectors of devices 1 and 2 are connected to an input pin defined by interface 106 in a so-called "loop through configuration." With regard 7, it is clear that in Ngo et al., the

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circuit has output pins (provided by interfaces 108/308) that can be connected to more than one connector (of devices 1-N /links 112).

Ngo et al. does not disclose the use of a plurality of switches each having three poles so that one input pin can be connected to a first pole, one output pin can be connected to a second pole, and one connector can be connected to a common pole.

Baurer discloses a switch matrix using switchable input/outputs. Specifically, Baurer discloses a switch matrix encoding system providing lines which function as either input or lines output lines for the purpose reducing pin counts and thus, reducing cost (see at least column 1, line 45 to column 2, line 2). In order to achieve this end result, Bauer employs a plurality of switches each having one common pole and two different poles designated for the switchable input/output. See at least Figs. 3-5 and description thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide switching circuit of Ngo et al. with a plurality of input/output switches, as taught by Bauer, for the purpose reducing pin counts and thus, reducing cost (see at least column 1, line 45 to column 2, line 2).

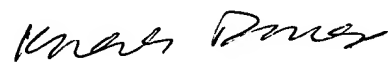
***Allowable Subject Matter***

Claims 8-11 and 13 are allowed.

Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

U.S. Patent Nos. 5,200,746 to Yoshifuji and 6,335,930 to Lee are cited as relevant art.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.



Khanh Dang  
Primary Examiner